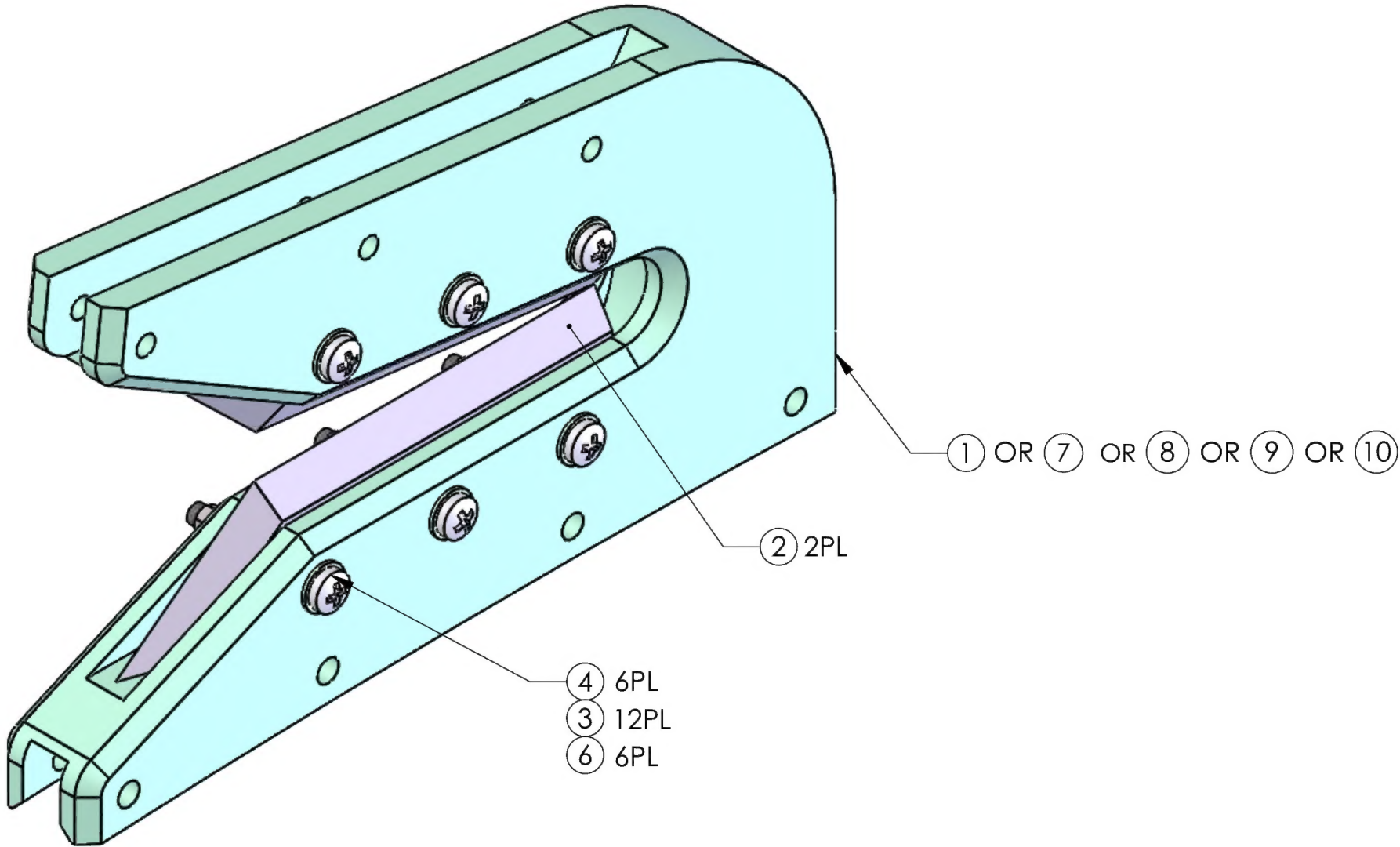


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NOTES:


1. MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12
2. FINISH IAW MPP-172 SECTION 2.1, 3.3 & 4.3.
3. MATERIAL: AISI A2 TOOL STEEL
CONDITION: ANNEALED
POST PROCESS: HEAT TREAT TO 58-62 Rc ROCKWELL HARDNESS
4. FINISH: PRIME IAW MPP-172 SECTION 3.3; 1-2 MIL MAX
5. DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED
6. IDENTIFY IAW MPP-120
7. APPLY F/N 5 AS REQUIRED TO ALL FAYING SURFACES OF F/N 2 UPON ASSEMBLY
8. CUTTING EDGE INTENDED TO BE SHARP, DO NOT BREAK SHARP EDGE
9. ALL DIMENSIONS NOT SPECIFIED ARE CONTROLLED BY 646.9710 CAD FILE.

REVISIONS				REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED	REV.	DESCRIPTION	DATE	APPROVED
E	INCORPORATED ECN 05345, 05360 & 05951	03/30/18	P. BRAVO		LAST PROTOTYPE REVISION : PR2		N/C
F	INCORPORATED ECN 06153	01/25/19	P. BRAVO	NC	INITIAL RELEASE	03/29/09	P. BRAVO
G	INCORPORATED ECN 06158	02/13/19	P. BRAVO	A	INCORPORATED ECN 02744, 03838, 03912	06/06/13	P. BRAVO
H	INCORPORATED ECN 06328	07/31/19	P. BRAVO	B	INCORPORATED ECN 03967	07/03/13	P. BRAVO
J	INCORPORATED ECN 06479	05/20/20	P. BRAVO	C	INCORPORATED ECN 04039	08/09/13	P. BRAVO
				D	INCORPORATED ECN 05329	02/26/16	P. BRAVO



646.9701 SHOWN
646.9702, 646.9703, 646.9704, & 646.9705 TYP

1					10	646.9715	BODY	1	2 9
	1				9	646.9714	BODY	1	2 9
		1			8	646.9713	BODY	1	2 9
			1		7	646.9712	BODY	1	2 9
6	6	6	6	6	6	601.1541	LOCKNUT	MS21042L08	
A/R	A/R	A/R	A/R	A/R	5	601.2045	RTV, LOCTITE 598		
6	6	6	6	6	4	601.2765	SCREW	MS27039-0819	
12	12	12	12	12	3	601.2764	WASHER	NAS1149FN832P	
2	2	2	2	2	2	646.9711	BLADE		4
				1	1	646.9710	BODY	1	2
X						646.9705	CUTTER SUB ASSY		
	X					646.9704	CUTTER SUB ASSY		
		X				646.9703	CUTTER SUB ASSY		
			X			646.9702	CUTTER SUB ASSY		
				X		646.9701	CUTTER SUB ASSY		
9705	9704	9703	9702	9701	F/N	PART #	DESCRIPTION	MAT'L	SPEC.

QTY		PARTS LIST			
NEXT ASSY (S)		ORIGINAL DATE (MO-DA-YR) 05-29-09		 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300 APICAL INDUSTRIES, INC. dba DART AEROSPACE	
646.9600		DRAWN BY R. ROSANO CHECKER P. BRAVO			
647.1400		DRAWING APPROVAL P. BRAVO 20.05.21			
		CONTRACT No.		CUTTER SUB ASSEMBLY	
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ± .5°			
SIZE		CAGE CODE		DWG. NO.	
B		07MZ6		646.9700	
				REV. J	
SCALE NONE				SHEET 1 OF 10	

DART 3030 ENTERPRISE CT.,
AEROSPACE SUITE A
VISTA, CA. 92081
APICAL INDUSTRIES, INC. (760)-724-5300
dba DART AEROSPACE

CUTTER SUB ASSEMBLY

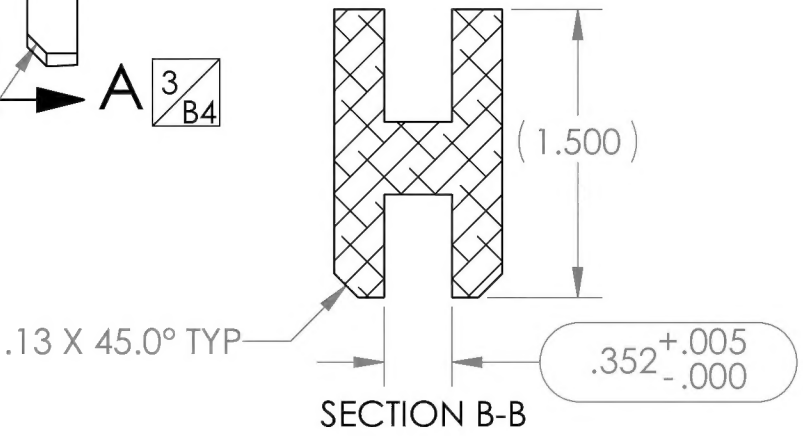
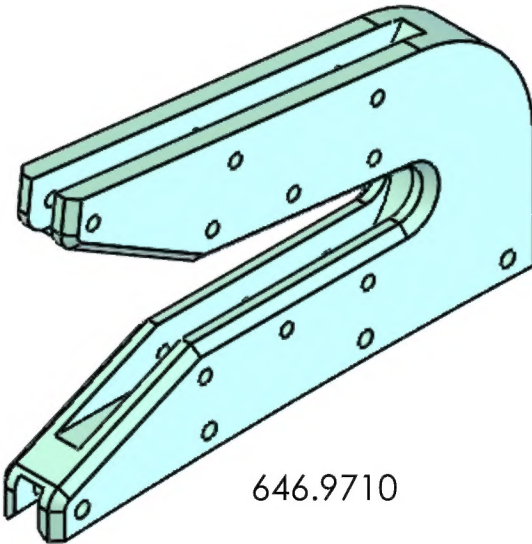
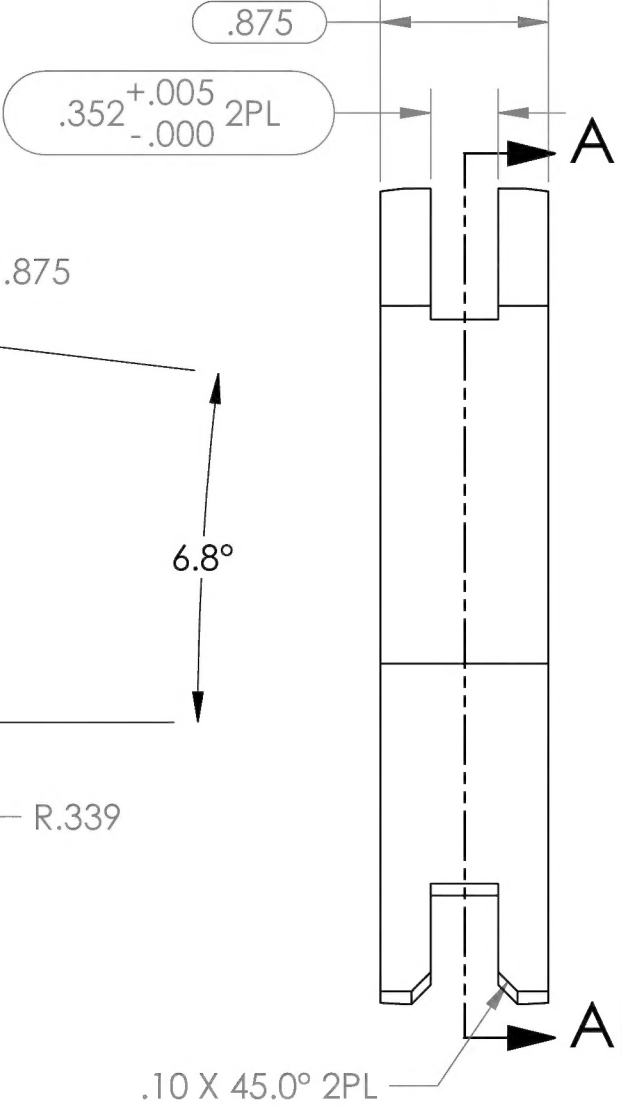
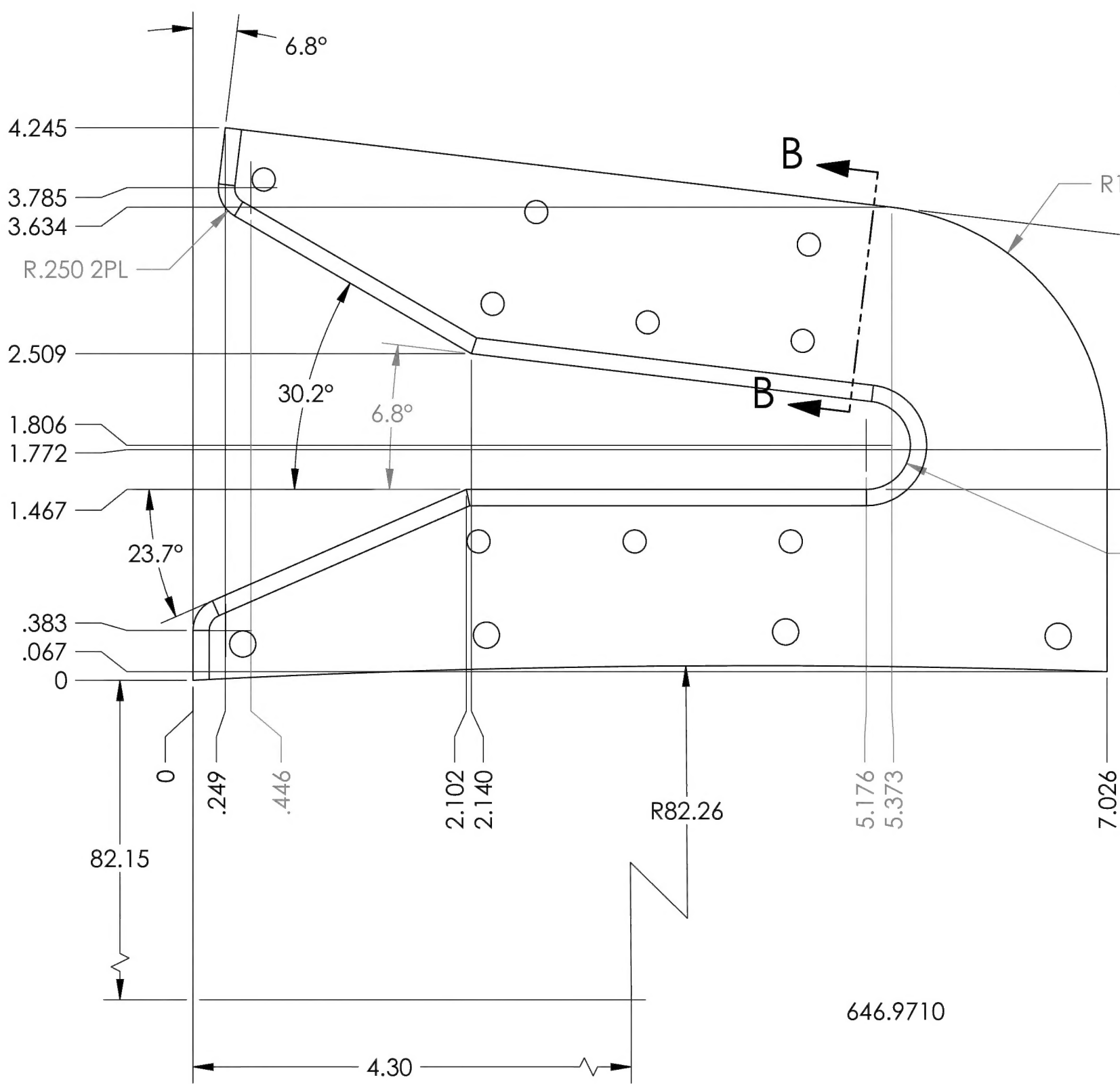
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A

B

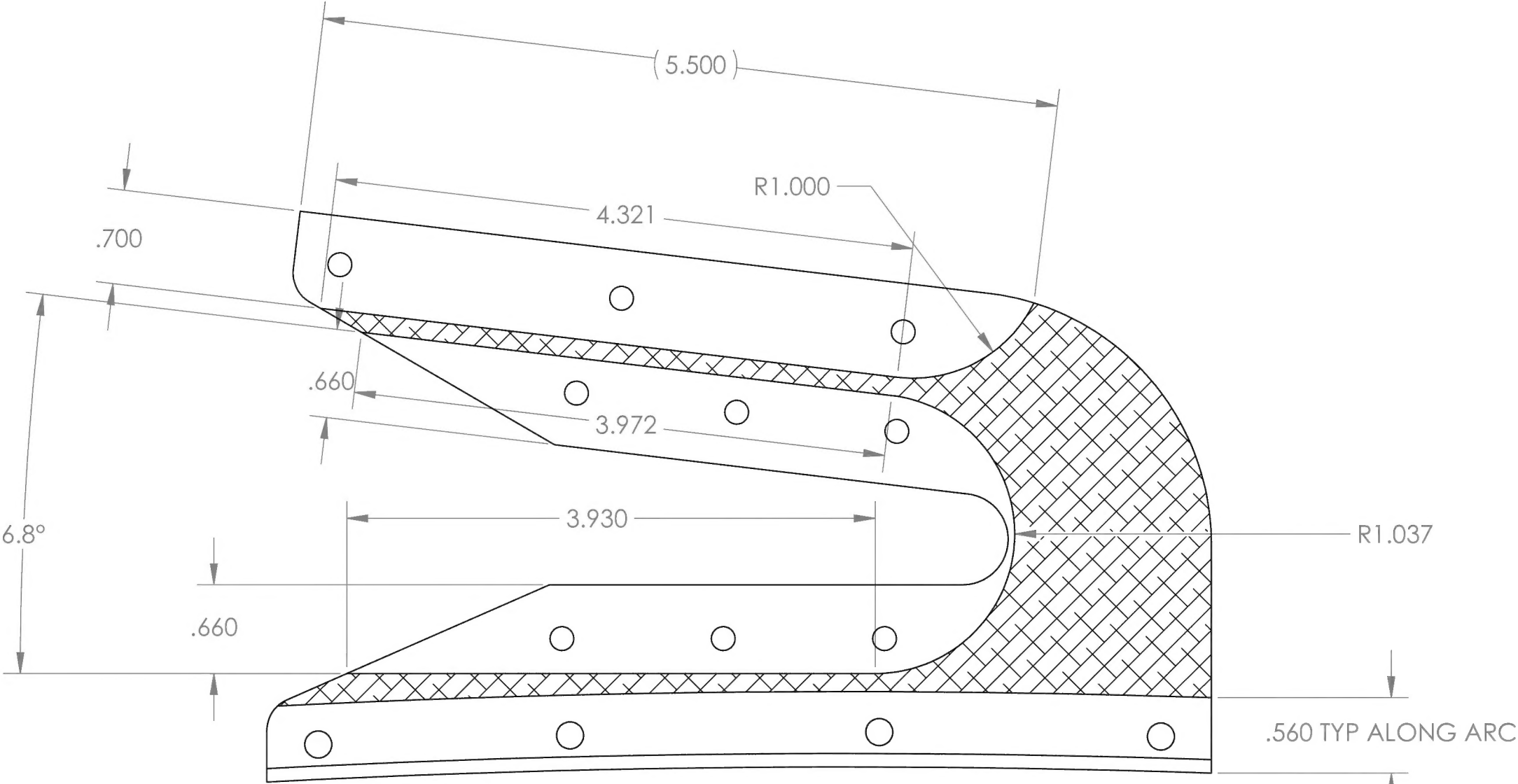
C

D



ORIGINAL DATE (MO-DA-YR) 05-29-09		 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY R. ROSANO	CHECKER P. BRAVO		
DRAWING APPROVAL P. BRAVO 20.05.21		CUTTER SUB ASSEMBLY	
CONTRACT No.		SIZE B	REV. J
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ± .5°		CAGE CODE 07MZ6	DWG. NO. 646.9700
		SCALE NONE	SHEET 2 OF 10

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SECTION A-A 

646.9710

ORIGINAL DATE (MO-DA-YR) 05-29-09	
DRAWN BY R. ROSANO	CHECKER P. BRAVO
DRAWING APPROVAL P. BRAVO 20.05.21	
CONTRACT No.	



DART
AEROSPACE
APICAL INDUSTRIES, INC.
dba DART AEROSPACE

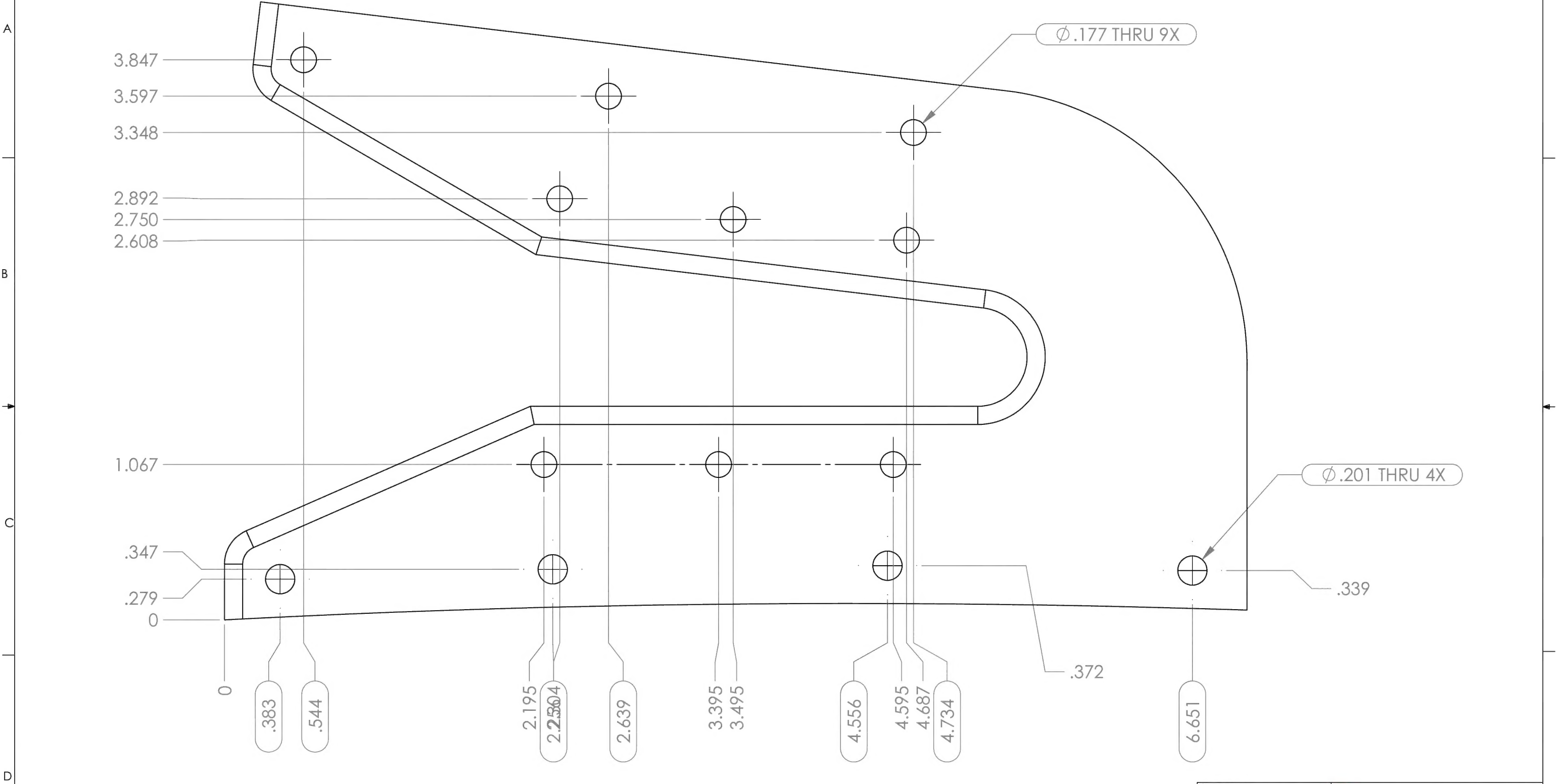
3030 ENTERPRISE CT.,
SUITE A
VISTA, CA. 92081
(760)-724-5300

CUTTER SUB ASSEMBLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ± .5°	
--	--


SIZE B	CAGE CODE 07MZ6	DWG. NO. 646.9700	REV. J
SCALE NONE			SHEET 3 OF 10

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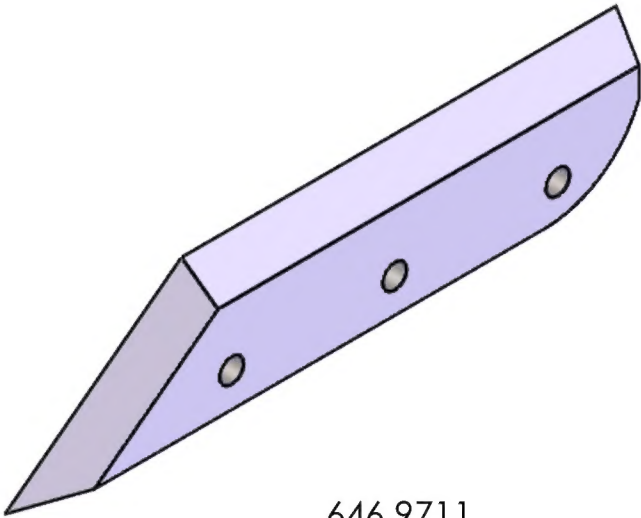
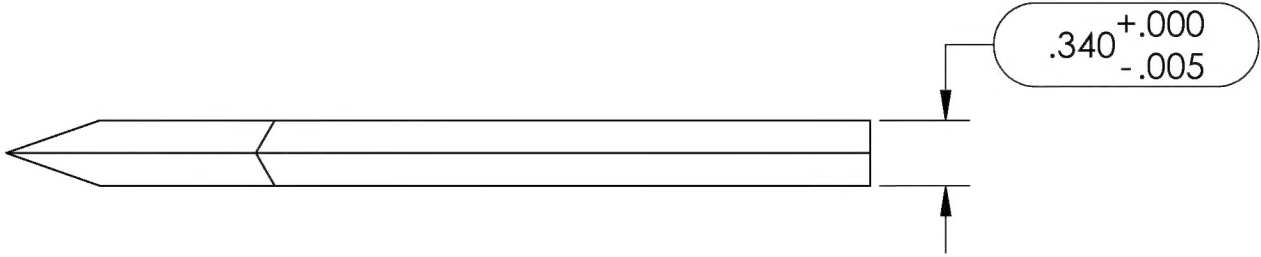


HOLE LOCATIONS +/- .002

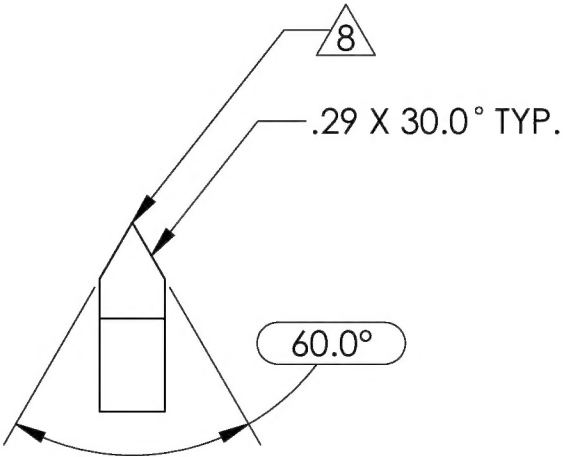
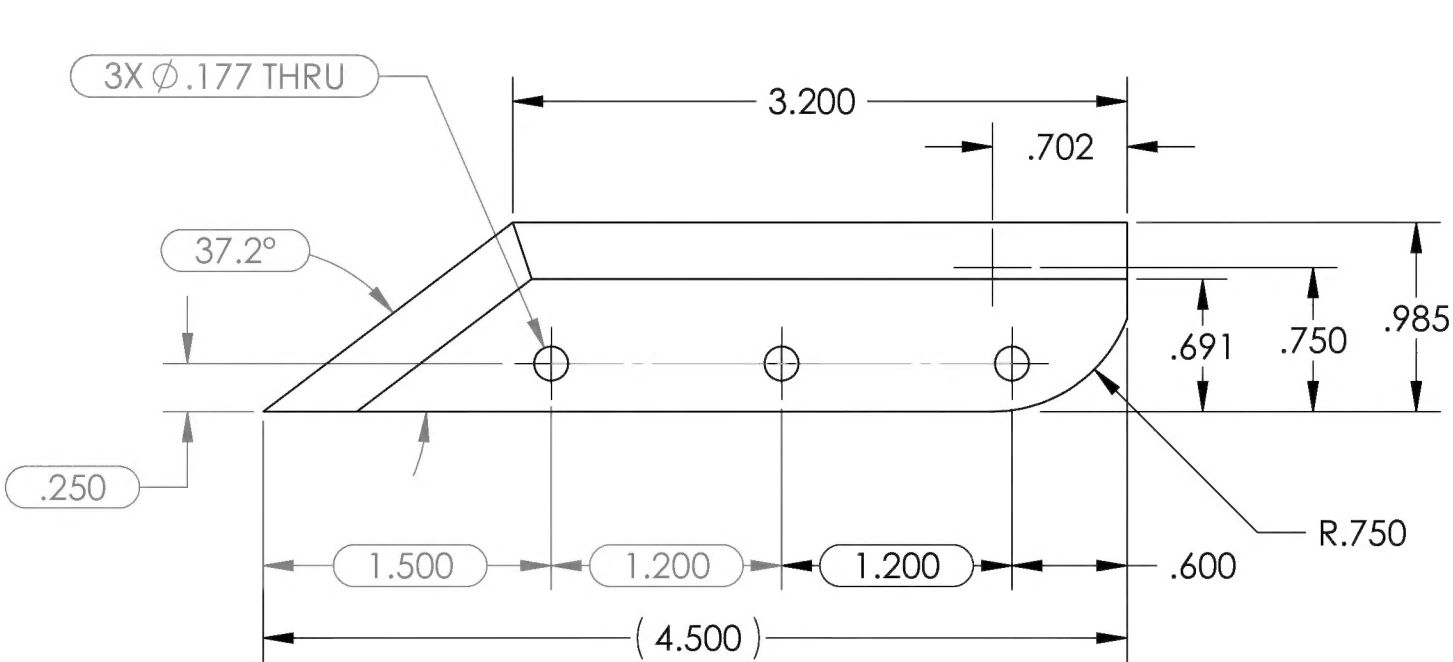
646.9710


ORIGINAL DATE (MO-DA-YR) 05-29-09		 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY R. ROSANO	CHECKER P. BRAVO		
DRAWING APPROVAL P. BRAVO 20.05.21		CUTTER SUB ASSEMBLY	
CONTRACT No.		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ± .5°	
SIZE B	CAGE CODE 07MZ6	DWG. NO. 646.9700	REV. J
SCALE NONE		SHEET 4 OF 10	

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646.9711



ORIGINAL DATE (MO-DA-YR) 05-29-09		 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY R. ROSANO	CHECKER P. BRAVO		
DRAWING APPROVAL P. BRAVO 20.05.21		CUTTER SUB ASSEMBLY	
CONTRACT No.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS $\pm .01$ 3 PLACE DECIMALS $\pm .005$ ANGLES $\pm .5^\circ$		SIZE B	REV. J
		CAGE CODE 07MZ6	DWG. NO. 646.9700
SCALE NONE		SHEET 5 OF 10	

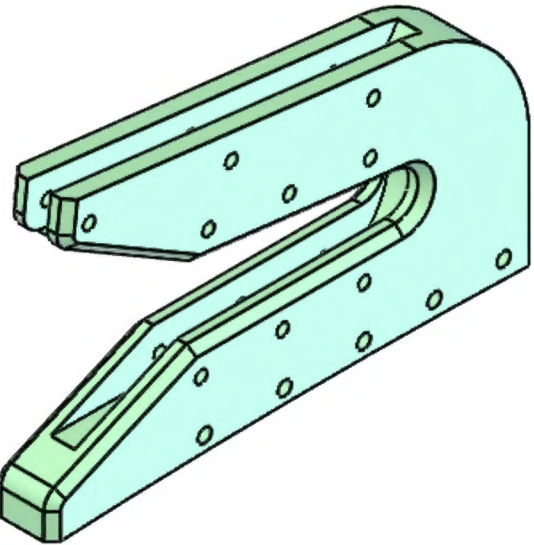
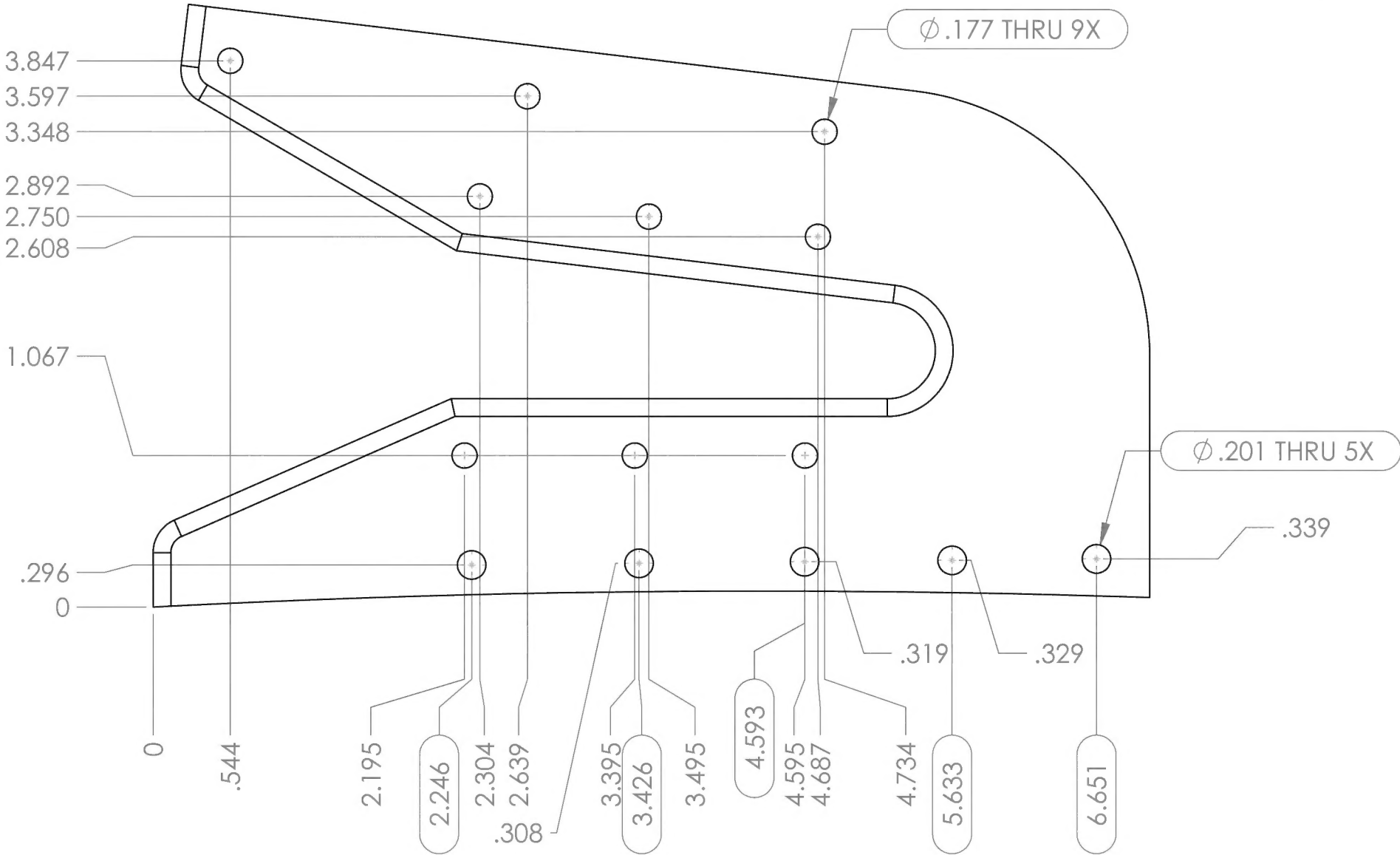
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.

A

B

C

D

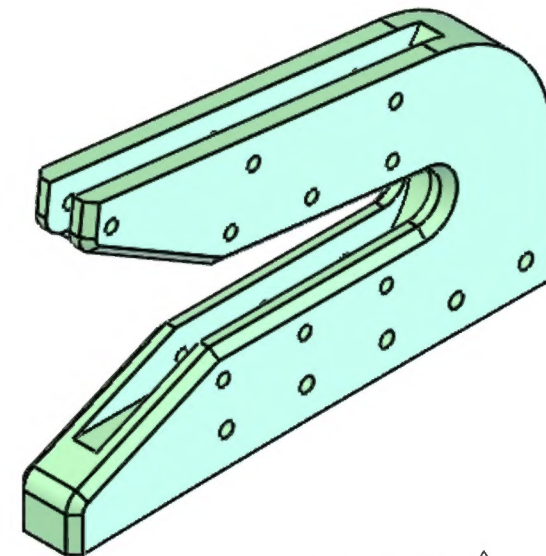


646.9712 $\triangle 9$

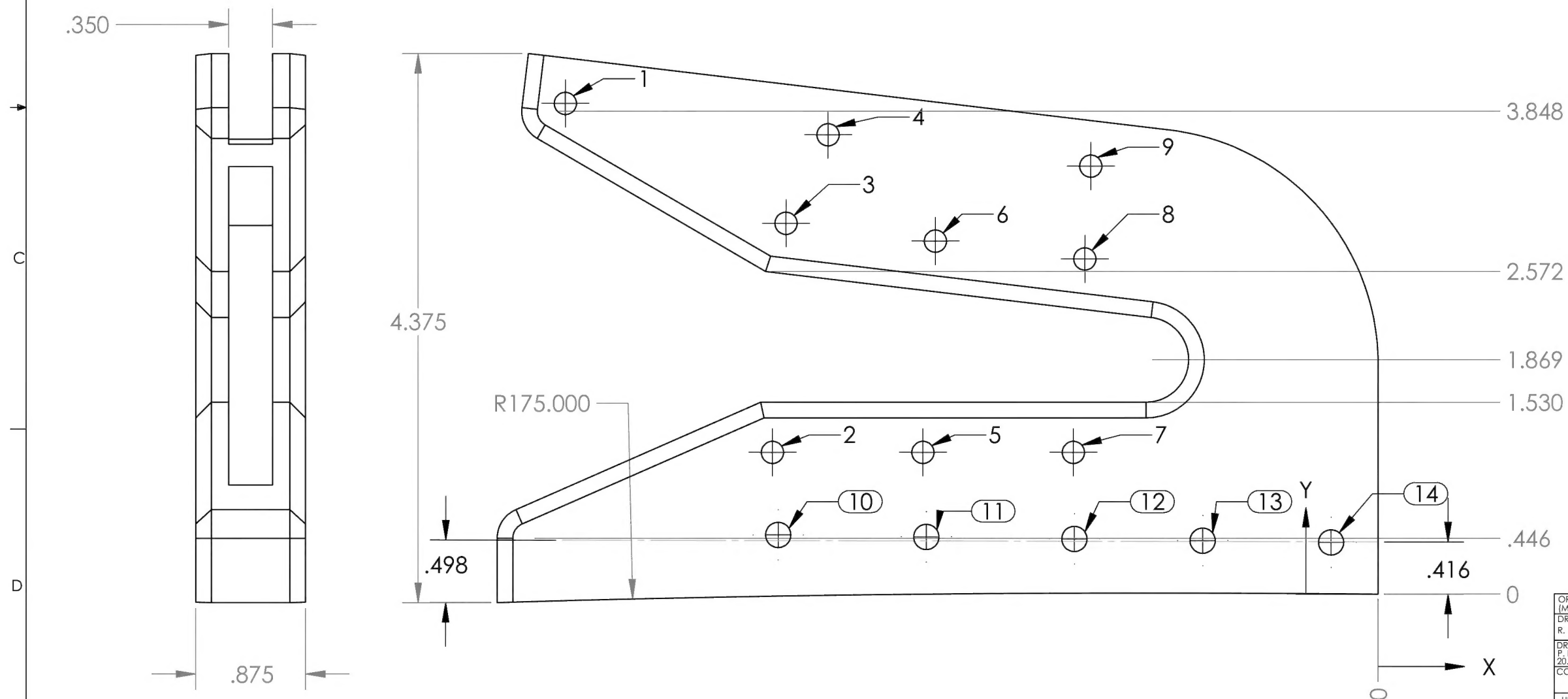
ORIGINAL DATE (MO-DA-YR) 05-29-09		DART 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY R. ROSANO	CHECKER P. BRAVO		
DRAWING APPROVAL P. BRAVO 20.05.21		APICAL INDUSTRIES, INC. dba DART AEROSPACE	
CONTRACT No.		CUTTER SUB ASSEMBLY	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS $\pm .01$ 3 PLACE DECIMALS $\pm .005$ ANGLES $\pm .5^\circ$		SIZE B	REV. J
		CAGE CODE 07MZ6	DWG. NO. 646.9700
		SCALE NONE	SHEET 6 OF 10

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TAG	X LOC	Y LOC	SIZE
1	-6.482	3.910	
2	-4.830	1.130	
3	-4.722	2.955	
4	-4.387	3.661	
5	-3.630	1.130	Ø .177 THRU ALL
6	-3.531	2.813	
7	-2.430	1.130	
8	-2.339	2.671	
9	-2.292	3.411	
10	-4.784	.472	
11	-3.603	.456	
12	-2.422	.440	Ø .201 THRU ALL
13	-1.400	.426	
14	-.375	.413	



646.9713 $\triangle 9.$



ORIGINAL DATE (MO-DA-YR)		05-29-09
DRAWN BY R. ROSANO	CHECKER P. BRAVO	
DRAWING APPROVAL P. BRAVO 20.05.21		
CONTRACT No.		

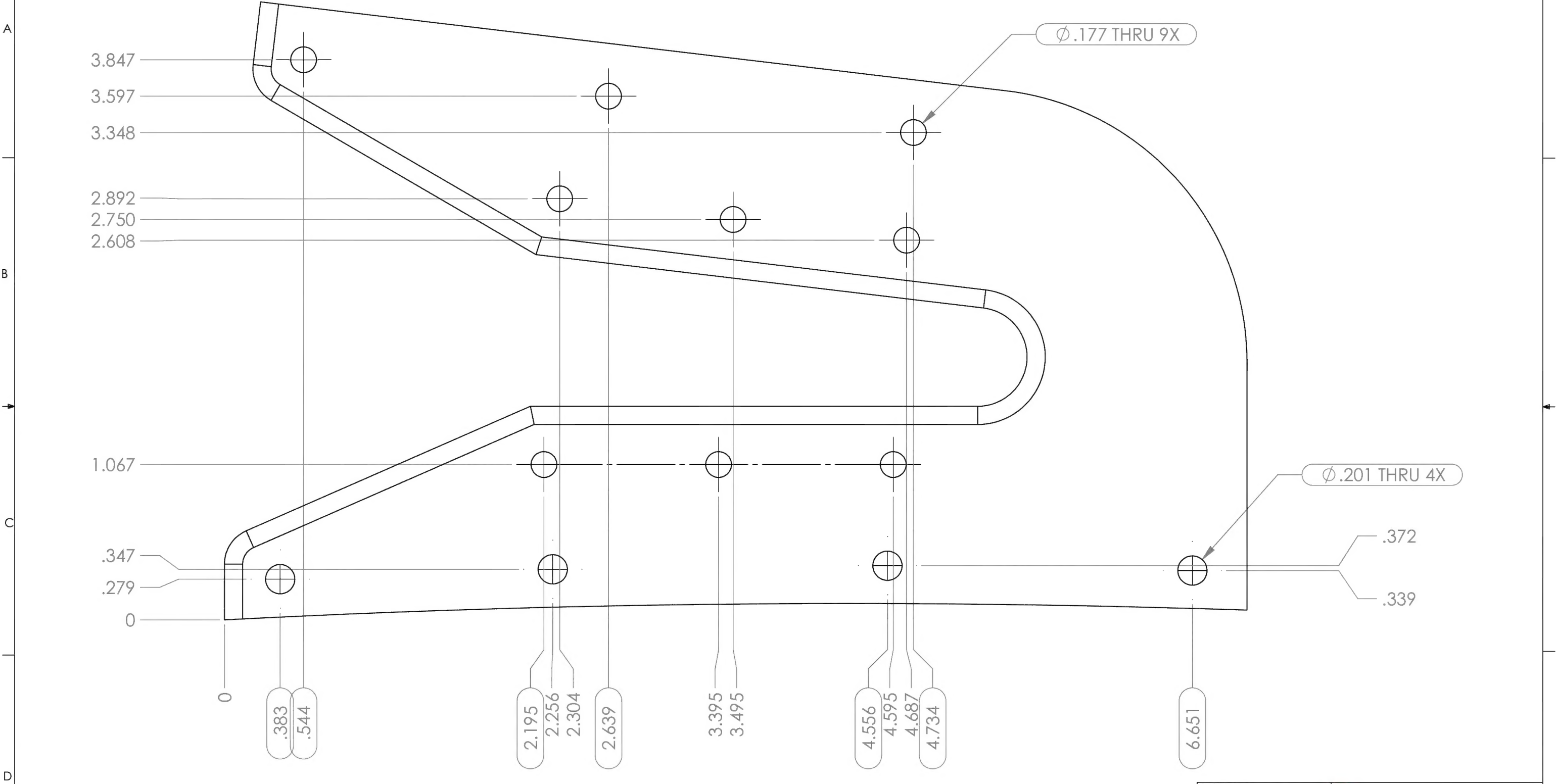
DART
AEROSPACE
APICAL INDUSTRIES, INC.
dba DART AEROSPACE

3030 ENTERPRISE CT.,
SUITE A
VISTA, CA. 92081
(760)-724-5300

CUTTER SUB ASSEMBLY


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS $\pm .01$ 3 PLACE DECIMALS $\pm .005$ ANGLES $\pm .5^\circ$	SIZE CAGE CODE DWG. NO. REV.			
	B 07MZ6 646.9700 J			
	SCALE NONE		SHEET 7 OF 10	

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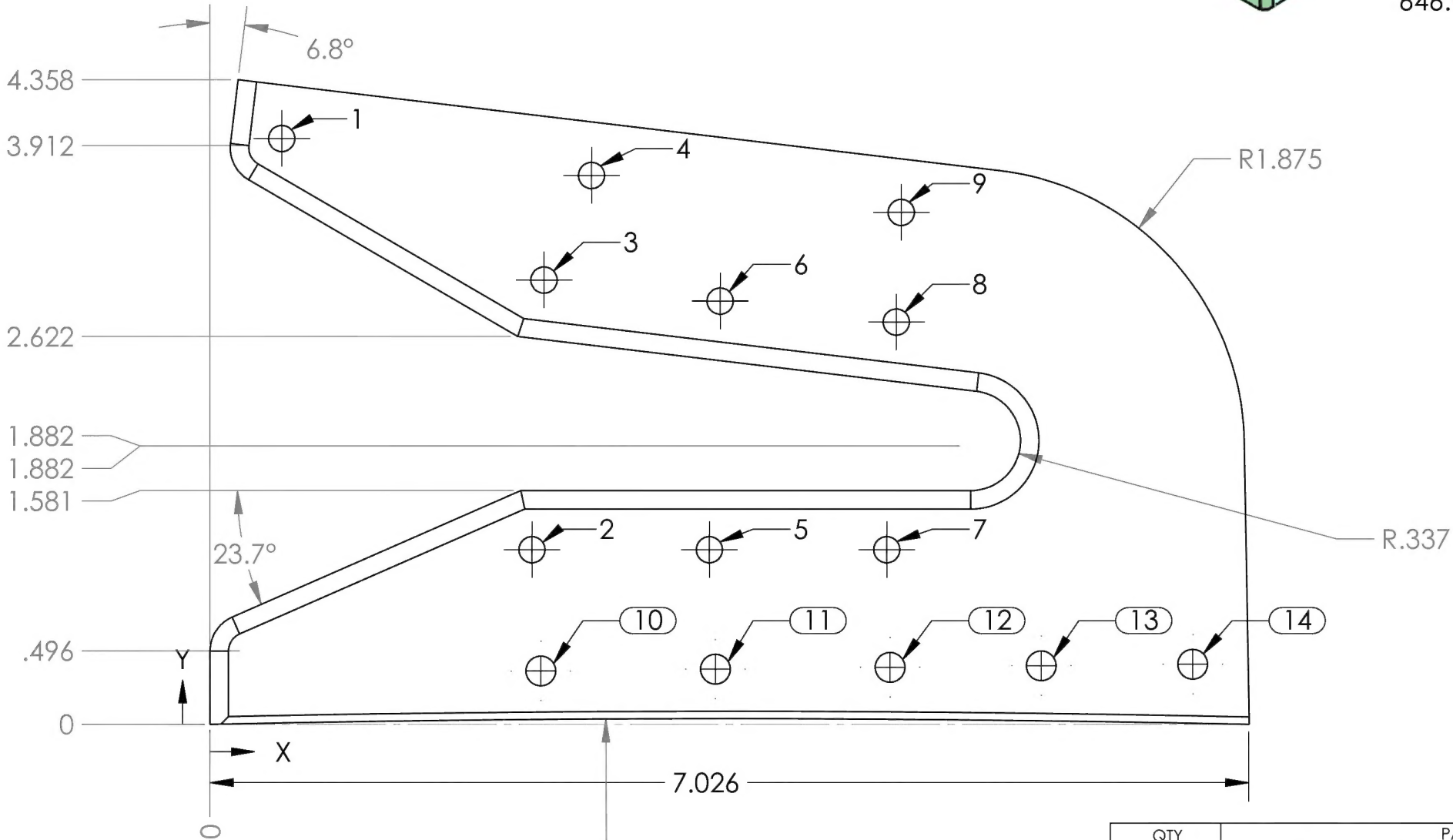
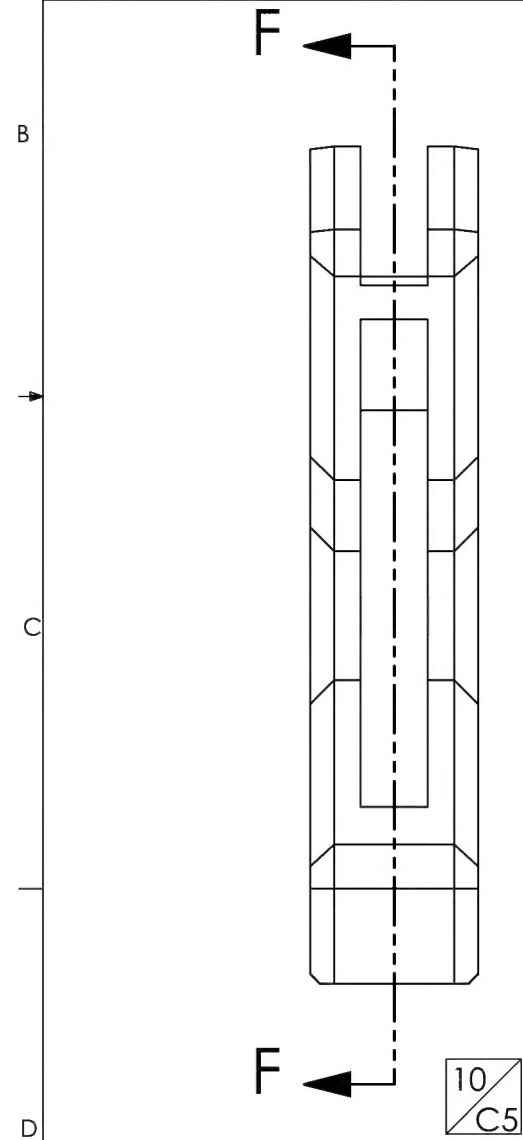
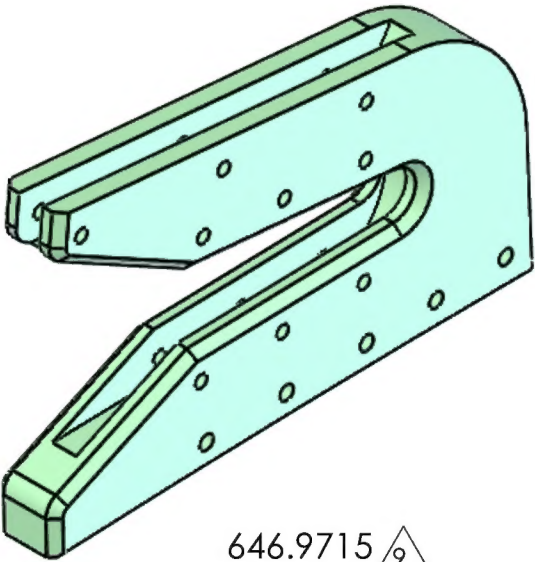



HOLE LOCATIONS +/- .002

646.9714

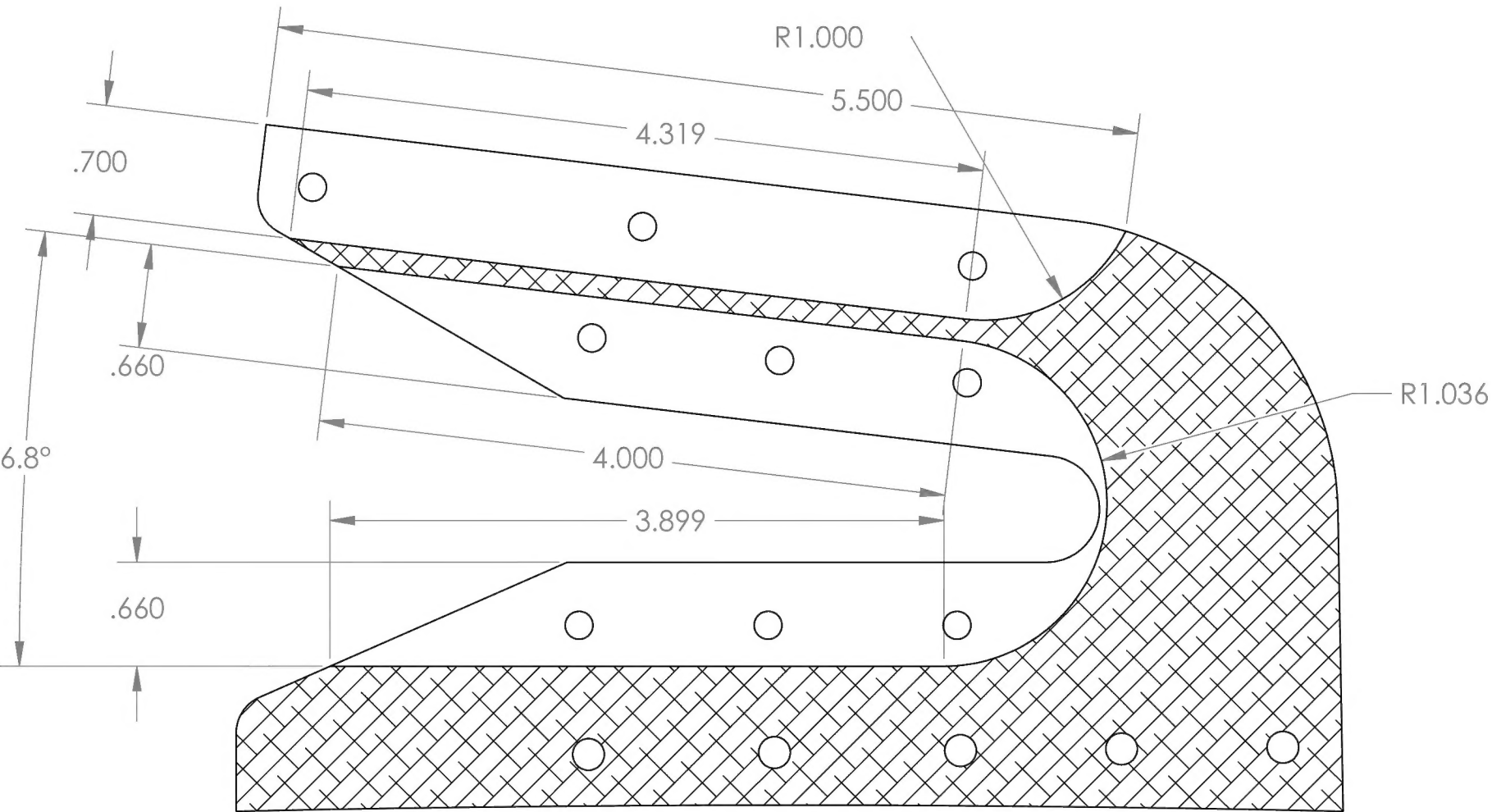
ORIGINAL DATE (MO-DA-YR) 05-29-09		 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY R. ROSANO	CHECKER P. BRAVO		
DRAWING APPROVAL P. BRAVO 20.05.21		APICAL INDUSTRIES, INC. dba DART AEROSPACE	
CONTRACT No.		CUTTER SUB ASSEMBLY	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ± .5°		SIZE B	REV. J
		CAGE CODE 07MZ6	DWG. NO. 646.9700
		SCALE NONE SHEET 8 OF 10	

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HOLE #	X LOC	Y LOC	SIZE
1	.485	3.960	Ø .177 THRU ALL
2	2.178	1.181	
3	2.259	3.004	
4	2.580	3.711	
5	3.378	1.181	
6	3.451	2.862	
7	4.578	1.181	
8	4.642	2.719	
9	4.675	3.461	
10	2.237	.361	Ø .201 THRU ALL
11	3.418	.373	
12	4.600	.385	
13	5.622	.396	
14	6.647	.407	



QTY		PARTS LIST			
NEXT ASSY (\$)	646.9600	ORIGINAL DATE (MO-DA-YR)		05-29-09	
		DRAWN BY	CHECKER		
		R. ROSANO	P. BRAVO		
		DRAWING APPROVAL			
		P. BRAVO			
		20.05.21			
		CONTRACT No.			
		UNLESS OTHERWISE SPECIFIED			
		DIMENSIONS ARE IN INCHES			
		TOLERANCES ARE:			
		2 PLACE DECIMALS ±.01			
		3 PLACE DECIMALS ±.005			
		ANGLES ± .5°			
		<div><div><div>3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300</div></div><div>APICAL INDUSTRIES, INC. dba DART AEROSPACE</div></div>			
		CUTTER SUB ASSEMBLY			
		SIZE	CAGE CODE	DWG. NO.	REV.
		B	07MZ6	646.9700	J
		SCALE NONE		SHEET	9 OF 10

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SECTION F-F 9
B7

QTY		PARTS LIST			
NEXT ASSY (\$)	646.9600	ORIGINAL DATE (MO-DA-YR)		<div><div><div></div></div><div>DART AEROSPACE</div><div>3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300</div></div> <div>APICAL INDUSTRIES, INC. dba DART AEROSPACE</div>	
		DRAWN BY	CHECKER		
		R. ROSANO	P. BRAVO		
		DRAWING APPROVAL			
		P. BRAVO			
		20.05.21			
		CONTRACT No.		CUTTER SUB ASSEMBLY	
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ± .5°		SIZE	REV.
				B	J
				CAGE CODE	DWG. NO.
				07MZ6	646.9700
		SCALE NONE		SHEET	10 OF 10